THE IMPACT OF EXCHANGE RATE FLUCTUATION ON FOREIGN DIRECT INVESTMENT IN KENYA

BY

BEN FELIX OMONDI OTIENO

D61/61986/2010

A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREEOF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI.

NOVEMBER 2012

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfillment of the requirements for the degree of Masters of Business Administration at the School of Business, University of Nairobi. It has not been submitted before for any degree or examination in any other University.

_____ _____

Ben Felix Omondi Otieno, Date
D61/61986/2010

_____ _____

Henrik Ondigo, Date
Lecturer, School of Business,
University of Nairobi

DEDICATION

This research project has been quite fulfilling and delightful to conduct. However this would not have been possible without the encouragement and sacrifices of time made available to myself by my family. I therefore dedicate this research project to my wife Florence and lovely daughter Shannel. May you succeed in your endeavours.

I also dedicate this research to my late grandmother Esther who taught me at a very tender age to always aim higher in my academic pursuits. This research is an important milestone in this journey. To my late grandmother Joyce also for the discipline that came in handy in keeping with the tight timelines for this study.

Lastly to my loving mum Lillian and dad Julius; Sisters Joyce and Esther; and Brothers Billy and Brian. May the completion of this study be an inspiration to you to strive for success in all that you do in life.

ACKNOWLEDGEMENTS

The completion of this research project would not have been possible without the dedication, resourcefulness and guidance provided by a number of people all through the study.

First and foremost I want to express my gratitude to my supervisor; Mr. Henrik Ondigo, for the academic guidance he accorded me in every stage of this research project. The wealth of knowledge in academic writing acquired through this interaction is invaluable.

I also want to thank my good friends Simon Turere and Wayne Otega; my colleagues Joseph Mwaniki and Rosinah Mbenya for proof reading this research. It is never easy to go through pages and pages of such writing in a field we are not familiar to. However as friends they made this happen while providing constructive feedback.

Finally to my family for their continuous encouragement and support without which I would not have been able to concentrate and complete this research

Thanks you

ABSTRACT

Kenya has been the business hub for East and Central Africa and is keen to retain this status towards realizing the vision 2030. Such regional economic leadership cannot be financed solely by domestic capital hence the need for foreign direct investments to cover the gaps in her socio-economic agenda towards the vision.

The main objective of this research project hence is to examine the impact of exchange rate fluctuations on the much needed foreign direct investments in Kenya. The exchange rate regimes in Kenya have been influenced through historical government macroeconomic policy from fixed exchange rate regimes to pegged and later floating through liberalization in the nineties. The exchange rates have been characterized by significant fluctuations with the local currency hitting historical highs and lows. This volatility of the nominal exchange rates might have an impact in attracting of foreign capital inflows into the country yet no study has been carried out so far in Kenya to determine the correlation between these two variables.

All the sectors of the Kenyan economy were the target population for this research project. Time series data for exchange rate fluctuation and foreign direct investments to Kenya between 1981 and 2010 were collected from Central Bank of Kenya and the World Bank Country data websites for analysis. The standard deviations for the exchange rates were derived for each year under study to determine the fluctuations. The absolute figures of the foreign direct investments data to Kenya was transformed through logarithmic transformation for normalization purposes. Pearson moment correlation was used to examine the relationship between exchange rate fluctuations and foreign direct investments over the period of study. The variables were plotted against on a graph and a best line of fit determined to generate the linear statistical model for their relationship.

From the collected data it was observed that while 1987 and 2002 recorded the lowest fluctuations in exchange rates and fairly low net foreign capital inflows into the country, conversely 1993 recorded the highest exchange rate fluctuations and the relatively high foreign direct inflows. This should point at a strong relationship between the two variables. However the inferential analyses found a weak relationship between exchange rate fluctuations and foreign direct investments. The best line of fit also revealed a positive for exchange rate fluctuations plotted against the logarithm of net foreign direct investments in current prices of tens of millions of United States dollars. This means that an increase in the

exchange rate fluctuations leads to an increase in the foreign capital inflows. However this finding is made less important by the insignificant relationship between the two variables. Hence the conclusions drawn from this study finding suggest that the impact of exchange rate fluctuations in attracting FDI is insignificant.

This study recommends that policy makers should put less effort in influencing exchange rates fluctuations in the bid to attract foreign direct investments to the country to fuel our Vision 2030 pillars. However more effort and further research should be focused on the other determinants of FDI with significant impact on the inflows. With emerging sectors like the energy sector and the growing interest in emerging markets in Africa by Nations like China, it would be good for more research to be conducted using alternative methodologies to improve knowledge on the main determinants of FDI to enable Kenya not only retain its economic leadership in the region but also attain mid-income level.

Table of Contents

ACRONYMS

ERR - Exchange Rate Regime

FDI - Foreign Direct Investment

IFE - International Fischer Effect

KES - Kenyan Shillings

MEI - Marginal Efficiency of Investment

MNE - Multi-National Enterprises

ODA - Official Development Assistance

OECD - Organization for Economic Co-operation and Development

USD - United States of America Dollars

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Kenya like many other developing countries can count foreign direct investments as one of the key factors in determining its economic growth. Foreign direct investment is important to a developing economy if it can effectively absorb its spill-over effects. FDI is a significant source of capital inflows with positive effects on the host country's economy through direct technology transfer, technological spillover, human capital formulation, international trade integration, and competitive business environment (OECD, 2002). However the macroeconomic environment in the host country must be favorable to attract foreign investment and one of the main factors of the operational monetary policy regime are exchange rates of its currency against other foreign currencies. Kenya liberalized her exchange rate market in the early 1990s, though this has done little to boost FDI inflows. The exchange rate has been volatile over the free regime with fluctuations pitting the shilling at historical highs and lows against foreign currencies.

1.1.1. Exchange Rate Fluctuation

The current account balance of a host country can be viewed as an indicator of the strength of its currency. A deteriorating current account balance is likely to lead to a depreciation of the host country's currency. It is possible that potential multinational investors view current account deficits negatively because such deficits may lead to inflation and exchange rate variations. If this is the case, then an increase in the current account deficit may lead to a reduction in FDI inflows. In contrast, if multinational companies take advantage of the current account deficits of the host country by negotiating more favorable operative terms, then the current account deficits may increase FDI inflows. (Dhakal, et al, 2010)

Foreign investors may gain or lose from a depreciating exchange rate. For instance, a depreciating exchange rate may boost exports and provide gains from resource-seeking FDI. Foreign investors, however, may lose as well because they must incur costs to prevent transaction and translation losses when currencies depreciate. If they believe that depreciation will continue after they enter a country, they may conclude that the costs will be too high to

justify their investments. In fact, Grosse and Trevino (1996), Froot and Stein (1991), Klein and Rosengren (1994), and Tuman and Emmert (1999) find mixed investor reactions to exchange rate depreciation. Leiderman and Thorne (1996) report that FDI into Mexico changed very little after the Mexican currency crisis and devaluation of 1994. Further, in spite of the high value of the U.S. dollar during much of the 1980s, the United States was a net recipient of FDI. Therefore, the impact of exchange rate depreciation on FDI inflows seems to be ambiguous.

The exchange rate risk that is created by exchange rate volatility which also affects the flow of FDI; various studies have pointed to scenarios where the impact may be negative as well as positive.

1.1.2 Foreign Direct Investment

In Kenya like most developing countries there has been a deficiency of investment capital which has had a negative effect on their economic situation. Due to the decline in official development assistance (ODA) in the 1990s, most of the developing countries' governments have put in efforts to attract foreign direct investment which not only creates employment opportunities but also contributes to economic growth and development. Foreign direct investment (FDI) is a major source of capital flow for emerging markets. Most of the emerging market countries are taking advantage of FDI and its spill-over effects. Though its contribution to economic growth has been argued, most researchers appreciate that its benefits outweigh its cost (Musila & Sigué, 2006)

After experiencing moderately high growth rates during the 1960s and 1970s, Kenya's economic performance during the last three decades has been far below its potential. Economic stagnation in the 1980s and 1990s affected Kenya's industrialization with consequent effects on labour productivity (Gachino and Rasiah, 2003). Further political instabilities in neighboring countries like Uganda also drew away foreign investments in Kenya.

FDI provides potential growth attributes like, technology, specialized skills and access to the international market (McAleese, 2004). However the host country must possess structures and mechanisms that can optimally absorb and retain these benefits. However not all

emerging markets possess this capability (Borensztein, De Gregorio & Lee, 1997; Seetanah and Khadaroo, 2007)

Kenya has had a long history with foreign firms dating back to the 1960s. For years Kenya has been seen as an attractive destination for foreign investors seeking to invest in the greater East and Central Africa region. It serves as the East African business hub for a number of International companies like General Motors, Proctor & Gamble, Microsoft, Google, Ogilvy and Mather, Coca-Cola and Citibank among others. Foreign Investors Control 51% of total banking assets in the country. (Government of Kenya,1994). Kenya has been seen as a favourable hub for the region because of its connectivity to worldwide hubs, its skilled and educated workforce, advances financial system, developed infrastructure and strategic regional trade memberships and partnership agreements.

However over the years, Kenya lost its appeal to foreign firms a phenomenon that has continued to the present. In 2008, Kenya launched vision 2030 where it hopes to achieve global competitiveness and prosperity of the nation. This initiative has seen a renewed commitment to attract FDI to assist in the industrialization process. (Kinuthia, 2010)

A host countries monetary policy is vital in playing the role of attracting foreign direct investment by creating a conducive economic environment. However the characteristics of monetary policy presents the impossible trinity, that is a trilemma problem where trade-offs must be done in order to maintain economic stability. Two of these anchors are inflation autonomy and exchange rate variability. These trade-offs can impact on the on FDI inflow into a country. (Lahréche-Révil & Bénassy-Quéré, 2002; Collier & Dollar, 2001)

1.1.3. Impact of Exchange Rate Fluctuations on FDI

Recently, foreign exchange rates in Kenya over the last two decades have been characterized by volatility which creates uncertainty in the investment market. Prediction of the future rates is made difficult both in the short and long-run by the constant fluctuations causing uncertainty in the global investment market. This uncertainty implies that potential international businesses are naturally exposed to exchange rate risks if they are to invest in Kenya.

The role of exchange rate in an open economy framework is important in the monetary transmission mechanism. Real exchange rates affect aggregate demand channel of the

monetary transmission of monetary policy. It affects the relative prices between domestic and foreign goods and foreign demand for domestic goods. The direct exchange rate channel for monetary policy transmission, affects inflation through domestic price of imported goods and intermediate inputs, which are components of consumer price inflation. (Ncube and Ndou, 2011)

Appropriate macroeconomic policies are key at ensuring economic stability and growth. Among the instruments that are crucial in economic management and stability of basic prices is the exchange rate (Were, Geda, Karingi and Ndung'u, 2001). As a relative price, the exchange rate is important in making spending and foreign direct investment decisions (Marrinan 1989). Liberalization of the foreign exchange market in Kenya was gradual—from a fixed exchange rate regime to crawling peg before a flexible or floating exchange rate regime was adopted in the 1990s.Increases in net external inflows are strongly associated with the appreciation of exchange rates.The exchange rate movements are significantly driven by events such as expectations regarding the outcomes of withholding donor funding and other intermittent changes in the economy. This partly explains the high volatility of the exchange rate in Kenya in the 1990s. (Were, et al, 2001).

Private capital inflows, on the other hand, are likely to respond to the interest rate differential. The policy of lowering interest rates is, therefore, consistent with a depreciation of the exchange rate. This implies that a demand for low interest rate regime must lead to a relatively weak shilling internationally.

1.2. Research Problem

While the exchange rates were liberalized in Kenya in the 1990s, it is doubtful to say if it has significantly contributed to attracting FDI. Given the potential role FDI can play in a country's economic growth, studying its determinants is important in placing Kenya in her placewithin the evolving international economic environment, industrial structure, changing business climate and the recent oil, gas and coal discoveries.Foreign investors conceptually extend corporate control over external frontiers with the long-term prospects of making profits in mind (Ashwini 2003). The implications of alternative exchange rate regimes for the flow of FDI is one of the central issues in international economics since our knowledge on this issue from theoretical view points, contrasts with the relatively weak empirical findings on the subject.

The Exchange rate regime is a key determinant of a country's macroeconomic stability as the ability of monetary policy to deal with inflation, exchange rate volatility and misalignments is greatly dependent on this policy variable (Nyarko, 2011). The floating exchange rate regime in Kenya has been characterized by considerable volatility with fluctuations of historical lows and highs in recent years against foreign currencies. Moreover considering that the exchange rates are frequently influenced and altered intentionally or unintentionally through monetary policies to make the economy competitive globally, studying the relationship between an operative exchange rate regime and FDI is justified.

Since Kenya is a potential producer of oil; if the recent discovery is established to be commercially viable, Kenya will find herself more likely to be exposed to external shocks than before. Foreign investors are known to weigh the exchange rate risks they will be exposed to when putting in their investments in foreign countries. It is expected that a highly fluctuating local currency against the relative foreign currency presents uncertainty to the investors. The Kenyan currency has witnessed significant fluctuations since the liberalized exchange rate regime introduced in the nineties. However a review of literature on FDI shows that no studies have been done in Kenya to examine the "impact of exchange rate fluctuations on FDI inflows." The only related studies in Kenya have focused on the determinants of FDI inflows in Kenya in general (Wanjala, 2001) & (Kinuthia, 2010), focused on impact of local private investment (King'ang'i, 2003) or focused on the relationship of FDI with economic development (Musau, 2011). This is interesting in the light ofthe fact that over the last two decades, the governments had managed or freed the exchange rates in attempts to make the nation an attractive FDI hub within the East and Central African Region. This obviously signifies a gap in the empirical studies devoted to the study of FDI inflows in Kenya by virtue of her strategic geographical location.

Studies have been carried out in other sub-Saharan countries with mixed findings; while exchange rate fluctuations had major effects on FDI in oil driven economies, it presented insignificant impact on FDI to countries with multi-sectorial driven economies. It would be interesting to have a study on Kenya to know what effect exchange rate fluctuations on FDI inflows.

This research therefore aims at filling this knowledge gap by answering the following question;what is the impact of exchange rate fluctuations on FDI in Kenya?

1.3. Objective of the Study

To examine the impact of exchange ratefluctuations on foreign direct investments in Kenya.

1.4. Value of the Study

This study will be significant to various groups as below.

It will provide knowledge that can help Policy makers in Kenya appreciate the significance of exchange rate while coming up with monetary policies that may deliberately influence the flow of foreign direct investments. Though the implementation of the economic recovery strategic paper since 2002 put Kenya on a path of rapid economic growth, it is doubtful to say it really contributed into an increase in FDI inflows. To achieve the ambitious economic development envisaged in the Vision 2030 paper, FDI will be required to play a major role in providing not just the much needed capital requirements, but through its spill-over effects, other sectors will benefit. The policy makers hence will need to have knowledge of what role exchange rate regimes can play in attracting FDI and influence its stability at favourable operational levels through well informed monetary policies. For example through deliberate monetary policies interest rates can be lowered to result in a relatively weak shilling internationally to attract 'resource-searching' foreign investments. Furthermore with the recent discovery of oil in Turkana Kenya will be more exposed to external economic shocks such as a steep rise in international interest rates, a slowdown of growth in the industrial world, and debt crises which often require currency depreciations and the adoption of more flexible exchange rate regimes. With increased capital mobility and waves of capital inflows and outflows due to the oil, there will be heightened potential for shocks and the pressure for flexibility. (Caramazza and Aziz, 1998). Hence such a study would be resourceful in providing empirical literature on the variables for informed monetary policy decisions.

Moreover, academic researchers dedicated to studying FDIinflowsin the country will benefit from this empirical study focused on impact of exchange rate fluctuations on FDI. So far no such study has been carried out in Kenya except on general determinants of FDI. For example researches around the oil triggered foreign capital inflows and outflows and how they are

affected by exchange rates of the shilling would greatly benefit from empirical literature from this study.

Economists can use the models from this study in forecasting expected FDI inflows at given exchange rates through economic modeling. They can also use technical analysis to predict exchange rates from the findings of the study. Structural changes in the international economy represent one of the biggest challenges for professional forecasters. (Levich, 2001) Because there are several decisions to make that require insight not currently available by computer analysis, economic forecasters continue to be employed and models from such studies help them in their forecasting.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The chapter looks at theoretic and empirical literature on the importance of FDI to a country including how it contributes to its economic development and growth. It examines the history of Kenya's economic growth and how FDI streams over the decades into the country are mapped out in this economic landscape. Among the determinants of FDI are exchange rates which was the main focus for our literature review under this chapter to better understand its behavior and linkages with FDI.

2.2. Theoretical Review

Economic development all over the world has had major contribution from FDI. There are a number of theories that try to explain capital moves across borders and we will review specific one relevant to this research. Exchange rates nevertheless play an important role in providing economic indicators to potential foreign investors to a country. Hence it is essential to understand the theories of exchange rates in international trade. The following theories will inform this study.

2.2.1. Neoclassical Trade Theory

According to the Neo-classical trade theory, capital moves across countries owing to differences in returns (Markusen, 1995). Early neoclassical theories explain international capital flows with differentiated rates of return across countries that lead to capital arbitrage, with capital seeking the highest return. Cockcroft and Riddell (1991) argue that the future investment flows are directly related to the package of incentives, which influence the expected rate of return; the security of the investment; the scope and speed with which companies are able to disinvest. The tax regime; investment code or guidelines; and overall macroeconomic policies are all elements affecting FDI.

2.2.2. Unbiased Expectations Hypothesis

The unbiased expectations hypothesis is the theory that forward exchange rates are unbiased predictors of future spot rates. This hypothesis assumes that there is no uncertainty about inflation. This leads to what is commonly called the Siegel Paradox.

The Siegel Paradox is the observation that if two investors from different countries have the same expectation of the probable distribution of future exchange rates, the expected returns of the two currencies will not actually offset one another. The unbiased expectations hypothesis also assumes that investors are risk neutral and that exchange rate can be ignored for the determination of the future spot rate. (Sercu-Uppal, 1995)

2.2.3 Keynesian Theory of Economics

The Keynesian theory of economics holds that aggregate demand is influenced by a host of economic decisions—both public and private—and sometimes behaves erratically. The public decisions include, most prominently, those on monetary and fiscal policies. Keynesian economics is a theory of total spending in the economy (called aggregate demand) and its effects on output and inflation. Active government intervention in the marketplace and monetary policy is the best method of ensuring economic growth and stability. Hence most developed governments actively engaged in interventions in foreign countries in a bid to influence the decisions of foreign governments and creates markets for their companies to invest abroad.

Development aid to least developed countries has its origin in the colonial period, although the issue of development was not important either to colonies or to the relationship between richer and poorer countries in 1950s (Riddell, 1992). This came as a result of Keynesian economics exemplified by, for instance, Rostow, Chenery, Strout and Rosentein-Rodan. Their concern was how to transform what is perceived as backward areas and unproductive societies into dynamic and growing economies (Riddell, 1992). Aid has been provided to accelerate developing economies, hence the role of outside capital is not directly to raise the standards of living but to make a transition in the economy and bring about sustainable growth (Bhagwadti and Eckaus, 1970). The economic motive was also in the self-interest of the developed nations to invest in developing nations to raise their own welfare. If the rate of interest is higher than the productivity of capital in developed countries and lower in developing countries, both parties will gain. If there are under-utilized resources in developed countries, which could not be activated due to balance of payments constraints, international aid will be mutually profitable by channeling such resources to developing countries (Brandt Report, 1980)

2.2.4. International Fischer Effect (IFE) Theory

The International Fisher Effect (IFE) theory suggests that foreign currencies with relatively high interest rates will tend to depreciate because the high nominal interest rates reflect expected rate of inflation (Madura, 2000). This theory also proposes that changes in the spot exchange rate between two countries will also tend to equate the differences in their nominal interest rates (Demirag and Goddard, 1994).

Exchange rate control could be very costly, and even become pointless, when speculators attack a currency, in even under government protection. High interest rate will prevent capital outflows from foreign countries, hinder economic growth and, consequently, hurt the economy (Solnik, 2000). Several factors could cause exchange rate changes. These include changes in foreign exchange supply and demand, balance of payments problems, rising inflation, interest rate, national income, monetary supervision, changing expectations and speculation (Khalwaty, 2000).

In linking exchange rate changes with changes in interest and inflation rates, the IFE theory states that the future spot rate of exchange can be determined fromnominalinterest differential. The differences in anticipated inflation that are embedded in the nominal interestrates are expected to affect the future spot rate of exchange (Sundqvist, 2002).

2.3 Empirical Review Studies

There is growing empirical evidence suggesting that the impact of FDI on economic growth is not automatic. For example, Borenzstein, De Gregorio, and Lee (1998) show that for FDI to contribute to economic growth, the host country must have achieved a minimum threshold level of development in education, technology, infrastructure, financial markets, and health. Thus FDI contributes to economic growth only when the host country has reached a developmental level capable of absorbing the advanced technology that it brings. This suggests that most of the effect of FDI on economic growth likely derives from efficiency gains rather than an overall higher induced level of investment.

FDI is believed to be stable and easier to service than bank credit. FDI are usually on long term economicactivities in which repatriation of profit only occur when the project earn profit. As stated by Dunning and Rugman (1985) Foreign Direct Investment (FDI) contributes to the host country's gross capital formation,higher growth, industrial

productivity and competitiveness and other spin-off benefits such as transfer oftechnology, managerial expertise, improvement in the quality of human resources and increased investment.

Although Kenya was the lead destination of FDI to the East African Community (EAC) in the 1970s and 1980s, the relative level of inflows was never high by developing countries' standards, as illustrated by the stock of FDI, which was only 7.5 per cent of GDP in 2003, compared with 25.3 per cent for Africa as a whole and 31.5 per cent for developing countries. Kenya's regional leadership in attracting FDI also disappeared as soon as the United Republic of Tanzania and Uganda started reforming their economies and opening up to foreign investors in the early 1990s, at a time when Kenya itself was suffering from economic stagnation. The end of apartheid in South Africa in 1994 also increased competition in the attraction of large Transnational Companies seeking a single production or headquarters centre in English-speaking Africa. (UNCTAD, 2005)

The importance of FDI in boosting Kenya's economic growth cannot be ignored. A look into the trends in Kenya's economic growth reveals that the country is yet to exploit its full potential of Gross Domestic Production. Ikara (2003) shows that, FDI contributes to production by raising total factor productivity and efficiency of resource use, which leads to economic growth. He found out that the transmission mechanism between FDI and economic growth is through direct technology transfer, technological spillover, human capital formulation, international trade integration, and competitive business environment. However, his study was more on poverty reduction rather than economic growth which may pose as a limitation although the two might be closely related.

Kenya with the exception of Sudan is the largest economy in the region. The rapid rise in agricultural output and the development of the industrial sector under high tariff protection generated strong growth in the 1960s and 1970s, making real GDP per capita in 1980 65% higher than in 1964. The second oil crisis of 1979 found Kenya unprepared to respond to the shock, however, as the limitations on agricultural output growth and import substitution policies became obvious.

The 1980s and 1990s were characterized by a series of muted, incomplete and non-sustained attempts at macroeconomic and structural reforms. These never succeeded in putting Kenya

on a sustained high-growth path, however, and only provided temporary relief based on the evolution of the world economic environment. The Government's attempts to control the fiscal deficit, although relatively successful, failed to address the issue of current expenditure and succeeded only through a drastic reduction in capital spending. This has been accompanied by the deterioration of the once reasonably efficient and well-developed public infrastructure and increasing problems of governance and insecurity, which further discouraged private investment. (UNCTAD, 2005)

Further, the economic stagnation in the mid-1980s and 1990s affected Kenya's industrialization with consequent effects on labour productivity (Gachino and Rasiah, 2003). Political instability in neighbouring countries particularly Uganda also drew away markets and investment in Kenya. Macroeconomic constraints arising from a collapse in the IMF's Structural Adjustment Program (SAPs) in 1986(Mwega and Ndungu, 2002), massive destruction of infrastructure due to El Nino rains and weak institutions had all contributed to economic stagnation (Phillip and Obwana, 2000; Todaro, 2000; Rasiah and Gachino 2005). Hence, although Kenya introduced a number of instruments to promote FDI and export oriented industrialization during this period, these efforts did not yield much.

After the disappointing period of the 1990s under the poor administration of the KANU regime, the new administration was handed the reins of a country in crisis following a long period of poor economic and industrial policies and where rampant corruption contributed to a weak investment climate. They were aware of the need to drastically improve policies and provide a favourable setting for private investment to generate wealth and reduce poverty. The Economic Recovery Strategy for Wealth and Employment Creation adopted in 2003 aims to ensure that the public sector plays its regulatory and facilitator role for private investment. The Strategy is articulated around seven key areas: (1) the macro-economic framework; (2) governance, security and the rule of law; (3) public sector reforms; (4) infrastructure; (5) sectoral policies in agriculture, tourism, trade and industry; (6) social policies; and (7) cross-cutting issues such as the financial sector, land or research and development policies. While foreign investors would benefit from improvements in all these areas, FDI could also contribute significantly in advancing the Government's objectives and setting Kenya on a higher growth path. (UNCTAD, 2005)

Kenya resumed the path to rapid economic growth in 2002 through the implementation of the Economic Recovery Strategy paper which was replaced by vision 2030 after it expired in

2007. During this period the government embarked on establishment of free trade zones, improvement of business climate, infrastructure, and development of incentives among initiatives. These efforts are aimed at building a momentum that can sustain economic growth and promote development. At the centre of these efforts is a commitment to attract FDI which was hoped would assist in the industrialization process.(Kinuthia, 2005). To be able to achieve desirable levels of these foreign capital inflows, it is important to understand what the determinants of FDI are.

In Kenya few studies have been conducted on FDI determinants. Kinaro (2006) using time series analysis finds that FDI in Kenya is determined by economic openness, human capital, real exchange rate and inflation. No specific study has been done to determine the impact of exchange rate fluctuations on FDI inflows in Kenya despite the volatile nature of the exchange rate over the years.

Empirical research completed over the last decade has dramatically increased our understanding of exchange rate behavior. The major insight to come from this decade of research is that foreign exchange is a financial asset. In an asset pricing framework, current exchange rates reflect the expected values of future exogenous variables. In the past, economists believed that there is no advantage to be gained by purchasing foreign capital and/or assets. As the economic system works in a long-term equilibrium, any firm purchasing foreign assets at a "bargain", in thehope of taking advantage of stronger currency in their home country against thetargeted country, can be equalised by price adjustment of the assets in the long-run (Froot and Stein, 1989). Froot and Stein (1989) argue that the economy isdistorted by "informational imperfection" (p. 4), and opportunities are not equalacross borders. There are merits in holding foreign assets. The difference in cultures, work ethics and way of life can have markedly different efficiency outcome.

Although, empirical studies suggest some linkage between exchange rate regimes and FDI inflows, the literature capturing this relationship has largely been scanty. However, Devereux and Engel (1999) studied the welfare impact of fixed and floating ERRs in the presence of a stylized form of FDI. Their study was one of the pioneering attempts at exploring this relationship. Some experts capture the linkage between exchange rate and FDI by arguing that stronger FDI implications from exchange rate movements are due to relative wage variations that are unanticipated in the expected costs of project finance for FDI. Others also capture this linkage by arguing that imperfect capital market considerations lead to rate of

return on investment projects that depend on the capital market structure in varying regimes and/or countries.

Exchange rate fluctuations pose uncertainty to potential foreign investors. Some recent studies attempt to identify the theoretical links and the channels through which uncertainty affects investment (Caballero, 1991; Abel and Eberly, 1994). By and large, these studies are inconclusive. Under different assumptions, uncertainty tends to affect investment in different ways. In addition, the magnitude of the effect depends on a variety of other factors. Therefore, from a theoretical perspective, the precise relationship between uncertainty and investment remains uncertain.

Today, there exists a "common wisdom" regarding the relationship between FDI and exchange rate. When a country's currency devalues, it is viewed as an opportunity for foreign investors to purchase assets at a reduced cost. This is especially true when foreign firms have identified specific assets in their targeted markets (Blonigen, 1997).Most empirical studies show that the exchange rate volatility hinders FDI inflows.

Kosteletou and Liargovas (2000) examined the linkage between FDI flows and ERRs in a simultaneous equationmodel for a large sample of industrial countries based on annual data over the 1960–97 period and established thatfor most countries, real exchange rate appreciation associated with flexible ERR induces FDI inflows.

2.4. Summary

In Kenya few empirical studies have been conducted on FDI determinants and more specifically on the impact of exchange rate as a determinant. While some economists have argued that the economy isdistorted by "informational imperfection" and opportunities are not equal across borders (Froot and Stein, 1989), exchange rate volatility poses uncertainty which recent studies have theoretically linked to affecting investments. It is hence important to understand the impact of this exchange rate volatility on the uncertainty surrounding capital inflows to Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology applied in this study. The design of this research; including the means selected for data collection, have been highlighted here. To achieve the objective of the study, the method of data analysis including expected results are elaborated in this chapter.

3.2 Research Design

This was a casual explanatory statistical study aimed at establishing the impact of exchange rate volatility on FDI in Kenya. The research used time secondary data for exchange rate fluctuations and FDI inflows for Kenya between the period 1981 to 2010 which is a 30 year period. This period selected enabled us have a representative analysis of data for both FDI inflows and exchange rate fluctuations. This was considered to be an appropriate data sample to draw fair conclusions.

3.3 Population

The target population for this research was all the sectors of the Kenyan economy for data relating to foreign direct investment and exchange rates. The foreign exchange rates used are yearly averages while for FDI it will be figures for net disbursements to Kenya for each year in focus.

3.4 Sample

The sampling frame was based on time series annual data of the independent and dependent variables between 1981 and 2010. This period was sampled based on available data for real effective exchange rates and FDI on the IMF (regional Economic Outlook) and the World Bank Country Data websites respectively.

3.5 Data Collection

To be able to conduct this research secondary data of exchange rates and FDI inflows in Kenya were collected. The research was designed to examine the exchange rate trends both under the fixed rate regimes, the pegged rate regimes in the early nineties and in the floating rate regime which prevails to date. Hence time series data was collected from 1981 to 2010 to

capture these different exchange rate regimes. The real effective exchange rates data were extracted from Central Bank of Kenya data archives while for FDI inflows, data was extracted from the World Bank Country Data website in current USD prices.

This research focused on observing correlations and economic indicator trends, and required having a large amount of economic data from 1981 to 2010. The selection process was designed to ensure maximum data availability in the sample, thus reducing the probabilistic error from non-respond error (Albright, Winston and Zappe, 2006).

3.6 Data Analysis

Descriptive and inferential analyses was used to analyze the data, all in an effort to investigate the impact and relation between exchange rate fluctuations to foreign direct investment in Kenya.

The variables for data collection were exchange rates and FDI net flows to Kenya, yearly, over a 30-year period from 1981 to 2010 due to data constraints. The research used the Statistical Package for the Social Sciences (SPSS) to estimate the result of the correlation, Kurtosis and skewness of the variables.

Bivariate correlation was used to evaluate the relationship between exchange rate and FDI. Using Pearson Correlation (*r*), the most commonly used bivariate correlation technique; the association between these two quantitative variables was estimated.

In determine the relationship between exchange rate fluctuations and FDI a simple conceptual model below was used. The logarithm of FDI as a reciprocal of tens of millions of dollars for transformative purposes to normalize the data.

$$\text{Log (FDI)} = f\,(\text{EXRFL}) \ldots\ldots\ldots\ldots\ldots\ldots \text{(i)}$$

Where; Log (FDI) is a function of the exchange rate fluctuations. This independent variable is measured as standard deviation of nominal exchange rate and defined as mean adjusted relative change in exchange rate squared. Theoretically it was expected that higher exchange

rate variability reduces FDI inflows due to increased risk and increased uncertainty on contracts denominated in foreign currency (Marco, 2012)

The model was linearized for estimation by the following statistical model.

$$\text{Log (FDI)} = \alpha_o + \alpha_1 \text{ (EXRFL)} + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(ii)}$$

Where; $$\text{EXRFL} = \sqrt{\frac{\sum_{i=1}^{n}(R_i - R_{i-1})^2}{n-1}}$$

And

FDI = Foreign Direct Investment

R_i = Current exchange rate

R_{i-1}= Mean exchange rate of the immediate previous year

n = Number of years

α_o= the intercept of the equation

α_1 = the parameter estimate of EXR

ε_t= Error Term

$\sum_{i=1}^{n}$ = Summation across the years

All other factors that can influence FDI other than exchange rate are assumed to be included in the error term.

The data for FDI and exchange rate fluctuations was plotted on a graph to find the best line of fit for the variables. In this study we were interested in finding the sign of EXRFL from the slope of the line. If the coefficient of EXRFL was found to be positive and statistically significant then we would say that exchange rate fluctuation (uncertainty) positively affects FDI inflows in the host country. If the coefficient is negative and statistically significant,

exchange rate fluctuation negatively affects FDI inflows. An insignificant coefficient would imply that there is no effect.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter analyses the data collected for exchange rate fluctuations and FDI between 1981 and 2010. Both descriptive and inferential analysis of the data is discussed to give a better understanding of the two variables. The data tables are annexed to this research as appendix B for reference. Normality test and Pearson Moment Correlation findings are interpreted and discussed in relation to the expected relationship drawn from literature reviews on the variables under study.

4.2 Descriptive Analyses

From appendix B on table 1 we see that FDI flows to Kenya over the study period has been unsteady. Between it is characterized with sharp increases and decreases in inflows from foreign investors. In 1981 it was US$14 million but slightly decreased in 1982 to $13million before growing 85% in 1983 to $24million. It then falls drastically in 1984 to $11million after which it grows gradually through 1985 to 1987 to $39million.

Interestingly in 1988 there were insignificant net inflows of FDI to the country. Even after receiving $62 million in the subsequent year, the inflows fell sharply in the next years to a low of $6 million in 1992. However there was a sudden increase in inflows in 1993 when net inflows to the country were $145million. This level could not be sustained in the next year and with only $7million received in 1994 which grew steadily to $109 million in 1996.

In 1997 the inflows reduced to $62million and further fell to $27million in 1998 before rising in 1999 and 2000 to $111million in FDI inflows. The subsequent year 2001 registered a considerable fall in capital inflows of $5million. This however improved in the next two years to US$28 million and US$82 million in 2002 and 2003 before falling steadily to $21 million in 2005. Inflows improved in 2006 to $50 million before sharply rocketing to $729 million in 2007 which was the highest in the period under study. An immediate deep followed in 2008 with $96 million in FDI inflows which improved to $116 million in 2009 and further to $186 million in 2010.

From the data on appendix B on table 2 we see that foreign exchange fluctuated steadily increasing from 1.63 in 1981 to 2.39 in 1983 before a slight fall in 1984. It then briefly

increased to 2.02 in 1985 before falling to below zero to -0.2 in 1986 when the KES exchanged at 16.23 to the US$. The exchange rate fluctuation then began increasing at an increasing rate from 0.22 in 1987 to 25.78 in in 1993 when the shilling depreciated from 16.32 to 58 KES to the USD.

A sudden appreciation of the shilling in 1994 and 1995 led to an exchange rate fluctuation of -4.62 in 1995. This was however followed by a sharp fluctuation of 5.68 in 1996. The fluctuation in 1997 was 1.62 but rose increasingly to 9.96 in 1999 with a quickly depreciating shilling trading at 58.73 to 70.33 in 1997 to 1999 respectively to the US$. A period of decreasing exchange rate fluctuations followed falling to -2.81 in 2003.

In 1994 the KES traded at an average of 79.17 to the US$ but appreciated to trade at 67.32 in 2007 having fluctuated by -4.32 from the 2006 average rate of Kshs.72.10 to the US$. Sudden depreciation of the shilling in the next two years led to a fluctuation of 8.17 in 2009 from the 2008 average rate of Kshs.69.18 per US$. In 2010 the Shilling traded at an average rate of Kshs.79.23 which was a 1.88 fluctuation from the previous year's rate.

4.3 Inferential Analyses and Normality Test

Inferential analyses are used to make inferences from the data to more general conditions; while descriptive statistics is used to simply describe what's going on in the data.

Normality test is done to ensure the variables used in the analysis are normally distributed. The common test for normality is the Jarque-Bera statistics test (Jarque, 1980). This test utilizes the mean based coefficient of skewness and kurtosis to check the normality of all the variables used. Skewness measures the direction and degree of asymmetry. A value of zero indicates a symmetrical distribution. A positive value indicates skewness (longtailedness) to the right while a negative value indicates skewness to the left. Values between -3 and +3 indicate typical values of samples from a normal distribution. While Kurtosis measures the heaviness of the tails of a distribution.

The usual reference point in kurtosis is the normal distribution. If this kurtosis statistic equals three and the skewness is zero, the distribution is normal. Unimodal distributions that have kurtosis greater than three have heavier or thicker tails than the normal. These same distributions also tend to have higher peaks in the center of the distribution (leptokurtic). Unimodal distributions whose tails are lighter than the normal distribution tend to have a

kurtosis that is less than three. In this case, the peak of the distribution tends to be broader than the normal (platykurtic). Negative kurtosis indicates too many cases in the tails of distribution while positive kurtosis indicates too few cases.

Table 4.2.1: Means, Standard Deviations, Kurtosis and Skewness of the variables

Statistics

		EXRFL	FDI
N	Valid	30	30
Mean		2.3937	74,076,563
Std. Deviation		5.60234	131,715,570
Skewness		2.546	4.526
Std. Error of Skewness		.427	.427
Kurtosis		10.122	22.650
Std. Error of Kurtosis		.833	.833
Minimum		-4.78	394,431
Maximum		25.78	729,044,146

Source: *Statistical Package for the Social Science (SPSS) spreadsheet*

Thefigures from table 4.2.1 show positive values of skewness for exchange rate fluctuations and foreign direct investments indicating skewness.

The Kurtosis figures show positive figures greater than three for exchange rate fluctuations and foreign direct investments indicating higher peaks and thicker tails than normal (leptokurtic curves).

4.4 Hypothesis and Hypothesis testing

Values for FDI and GDP were input into the Statistical Package for the Social Science (SPSS) spreadsheet and the Pearson Moment Correlation was computed. The result is shown in Table 4.3.1.

Table 4.3.1: Correlation coefficient for the variables

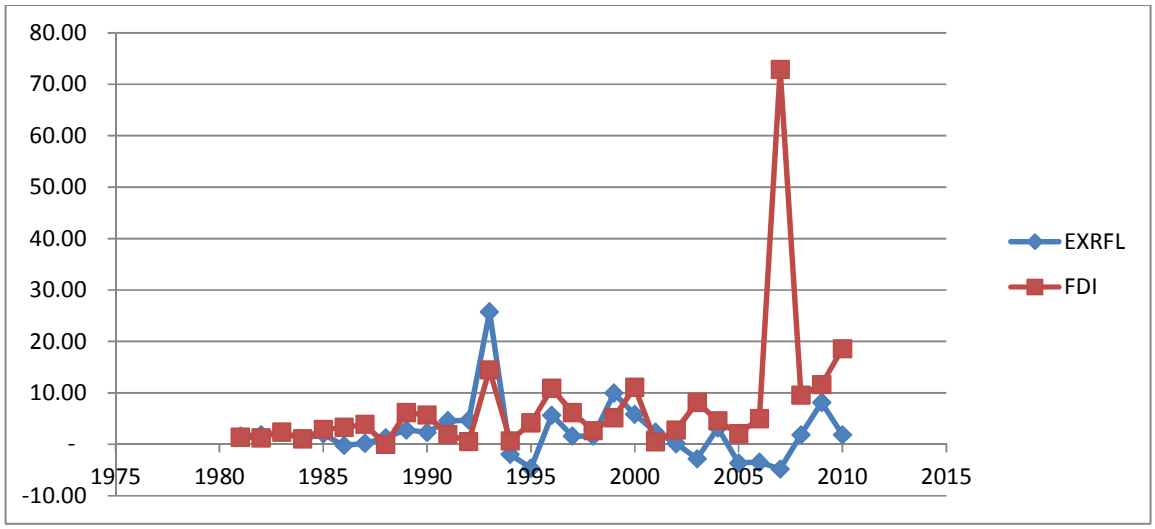
Correlations

		EXRFL	FDI
EXRFL	Pearson Correlation	1	(0.073)
	Sig. (2-tailed)		0.701
	N	30	30
FDI	Pearson Correlation	(0.073)	1
	Sig. (2-tailed)	0.701	
	N	30	30

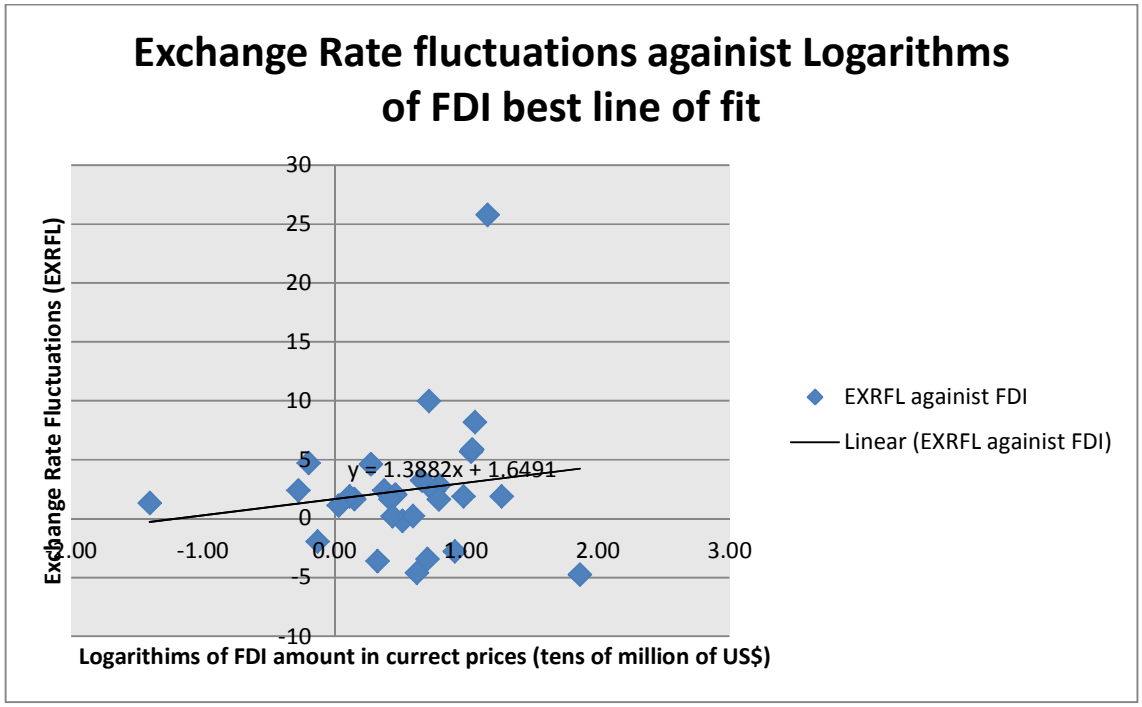
Source: *Statistical Package for the Social Science (SPSS) spreadsheet*

The correlation coefficient of -0.073 shows a negative weak relationship between exchange rate fluctuations and foreign direct investments.

Graph 4.3.1: Graphical trend Analysis for exchange rate fluctuations and Foreign Direct Investments from 1981 to 2010



Graph 4.3.2: Graph representing exchange rate fluctuation against Logarithms of FDI (best line of fit for the period from 1981 to 2012



From the graph 4.3.2 we can derive a simple linear function for EXRFL and logarithms of FDI as a reciprocal (Y/10,000).

Y=mX +C;……. (iii)

Where Y = Log (FDI/10,000)

X = EXRFL

m = the slope of the graph

C = the y-intercept

Thus Y = 1.3882X + 1.6491…… (iv)

An increase in exchange rate fluctuation causes an increase in FDI if all other factors are held constant.

From our linear model (ii); $FDI = \alpha_o + \alpha_1(EXRFL) + \varepsilon_t$, we can substitute the figures from the simple linear equation above.

Thus FDI = 1.6491 + 1.3882(EXRFL) + ε_t …….. (v)

4.5. Interpretation of the Findings

Based on the findings above the impact of exchange rate fluctuation on foreign direct investments is insignificant. From our linear model we see that there is a positive relationship between the two variables meaning that as the exchange rate fluctuations increases foreign direct investments will increase.

These findings hence can be interpreted to mean that foreign investors would be attracted by a fluctuating local currency exchange rate against their respective foreign currencies. This can be explained by speculations of making considerable profits in emerging markets like Kenya. However the relationship being weak means that foreign exchange fluctuation is not the main factor that determines FDI inflows into Kenya. It is just one among other factors that influence foreign investors' decision to provide capital inflows to Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, conclusions are drawn from the analytical findings of the previous chapter and recommendations made to inform any future policy aimed at attracting foreign direct investment while considering the prevailing exchange rate fluctuations in Kenya. The limitations to this research project are also highlighted with recommendation of areas for further study to contribute to the knowledge on foreign direct investment determinants in Kenya and better understand the relationship between exchange rates and FDI.

5.2 Summary

From the statistical derivations from table 1 on appendix B and the result of the Pearson moment correlation on table 4.3.1 in chapter four, for the values of foreign exchange rate fluctuations and FDI from 1981 to 2010, it is revealed a weak and insignificant relationship between the two variables in Kenya. This means that significant depreciation or appreciation of exchange rates have no impact of foreign direct investments in Kenya. It further means that in coming up with macroeconomic strategies to attract FDI into the country in a bid to stimulate economic growth policy makers should not put a lot of focus on influencing exchange rate fluctuations.

However it is important to note that perpetual fluctuations of the local currency may lead to depreciated foreign investor confidence due to perceived exchange rate risk posed by such volatility. It may be more significantly experienced in situations where foreign investors rely on imported raw materials to operate locally hence raising the cost of their investment.

5.3 Conclusions

From this research we conclude that that the impact of exchange rate fluctuations on FDI is insignificant in Kenya. We also note that though the relationship between the two variables is positive hence we conclude that an increase in exchange rate fluctuations of the local currency against foreign currencies leads to an increase in FDI inflows though the impact is

weak. However other research methodologies can be applied in future researches to see if this conclusion is sustained.

5.4 Recommendations for Policy

Since we have established from this study that exchange rate fluctuations weakly impact on FDI inflows, other factors may play a more significant role in attracting foreign capital to Kenya. These may include factors like an unfavorable political climate, stagnation in growth and development of key and emerging sectors in the country like agriculture tourism and manufacturing. It would therefore be important for policy makers not to put a lot of effort in influencing exchange rates but more on setting up policies that influence the other determinants of FDI.

Policy makers should also be awake to emerging sectors that like the energy sector that might lead to increases in foreign capital flows from their multiplier effect on other sectors. Policy makers should therefore focus on setting up infrastructure that will ensure the spill-over effects of the sector are harnessed. We have recently seen a re-energized drive to seek foreign investors to finance strategic energy projects in the sector particularly the unexploited geothermal energy sources in the Rift Valley, the massive gas deposits discoveries of the shores of Lamu, the oil discoveries in Turkana and coal deposits in the Mui basin in Kitui County. For foreigners to invest into sectors like manufacturing, cheap energy is essential hence the government can focus in developing the sectors and exploring the different energy sources to spur economic growth and attract FDI.

Finally now that this study has found that exchange rate fluctuations insignificantly impact on FDI, the other macroeconomic indicators be the main focus in developing policies aimed at creating a favourable economic environment that can attract FDI to Kenya. This include inflation rates and real exchange rates.

5.5 Limitations of the Study

This research did not factor the effect of time lagged data for exchange rate fluctuations in terms of how long it takes for foreign investors to respond to such fluctuations. Investors are known to be speculative and would want to strike when they can make most returns. A depreciation in currency would trigger investors reaction seeking to maximize their profits.

This study would have factored in more macroeconomic indicators to see their correlations in light of foreign direct investment attraction. However due to the time constraints this research was limited to a bivariate study.

This study was limited to net foreign direct investments inflows to determine the impact of exchange rate on foreign investment. However there is considerable foreign equity portfolio investments in Kenya which could have been significant in the findings of this study.

5.6 Areas for Further Study

Future research opportunities may involve considering the effect of exchange rate volatility on FDI for the three different exchange regimes in Kenya namely the fixed exchange rates regime in the eighties, the pegged regime in the early nineties and the floating regime that prevails to date. However it would be interesting to factor in foreign investor responsiveness in future studies and establish if it is one of the determinants of foreign capital inflows into the country.

Further studies can be done to examine the impact of other macroeconomic indicators on FDI. These may include inflation and interest rates and how they impact FDI flows to Kenya with an objective of providing knowledge on the favourable macroeconomic environment for economic growth though the foreign capital flows.

Previous studies have been conducted to establish the determinants of FDI inflows in to Kenya in general, however further studies can be conducted to establish the relationship of the factors with FDI and the significance of their impact.

This study focused solely on net foreign direct investments in the country however there is considerable growth in foreign equity portfolio investment in the Kenya. It would hence be interesting for future research to include foreign equity portfolio investment to see if the findings would be the same.

Finally, since this study did not factor in the effect of time lagged data for exchange rate fluctuations; in terms of how long it takes for foreign investors to respond to such fluctuations, it would be interesting for future research to factor this in and see if the findings and conclusion of this research can be sustained.

REFERENCES

Abel, A. and Eberly, J. (1994.A) Unified Model of Investment under Uncertainty. *American Economic Review*, 84, 1369-1384.

Albright, S.C., Winston, W.L. and Zappe, C. (2006) *Data analysis and decision making with Microsoft Excel*. 3rd ed. USA: Thomson Learning.

Akinboade, O.A., Siebrits, F.K. and Roussot, E.N. (2006) Foreign direct investment in South Africa, in Ajayi (ed.) *Foreign direct investment in Sub-Saharan Africa – Origin, targets, impact and potential*. Nairobi: African Economic Research Consortium.

Ashwini, J. (2003). How Does the Black Market Exchange Premium Affect Foreign Direct Investment (FDI)?"Stanford University MA.

Barrell, R. and Pain, N. (1996) An econometric analysis of U.S. foreign directinvestment. *The Review of Economics and Statistics,* 78(2), 200-207

Blonigen, B.A. (1997). Firm-specific assets and the link between exchange rates and foreign direct investment. *The American Economic Review*, 87(3),447-465.

Borensztein, E., De Gregorio, J. and Lee, J.W. (1997) How does foreign direct investment affect economic growth? *Journal of International Economics*, 45, 115-135.

Buckley, P.J. and Casson, M.C. (1976). The Future of the Multinational Enterprise, Homes & Meier: London.

Caballero, R. (1991).On the Sign of Investment-Uncertainty Relationship,‖ *American Economic Review*, 81, 279-288.

Caramazza, F and Aziz, . (1998). Fixed or Flexible: Getting the Exchange Rate Right in the 1990s. *Economic Issues International Monetary Fund*.

Collier, P. and Dollar, D. (2001) Development effectiveness: What havewe learnt? Development Research Group, the World Bank [internet.]Available from http://www.oecd.org/dataoecd/16/2/2664872.pdf(accessedon 26/10/11)

Demirag, I and Goddard S. (1994).*Financial Management for International Business,* McGraw-Hill Book Company, Berkshire, Europe.

Dhakal, D, Nag R, Pradhan G, and Upadhyaya K. (2010). Exchange rate volatility and foreign direct investment: evidence from East Asian Countries. *International Business and Economics Research Journal* 9 (7).

Dunning J. and A. Rugman (1985).The Influence of Hymer's Dissertation on the Theory of Foreign Direct Investment. *America Economic Review*, 75(2).228 - 232.

Fedderke, J.W. and Romm, A.T. (2006) Growth impact and determinants of foreign direct investment into South Africa, 1956 – 2003.*Economic Modelling,*23, 738-760.

Froot, K.A. and Stein, J.C. (1989).*Exchange rates and foreign direct investment: An imperfect Capital markets approach.* NBER Working Paper No. 2914.National Bureau of Economic Research. Cambridge, MA.

Füss, R. (July, 2002) *The financial characteristics between 'emerging' and 'developed' equity markets. In: International Conference on Policy Modeling, Brussels Belgium*. EcoMod Network.

Gachino, G. and R. Rasiah (May, 2003). *Labour Productivity, Exports and Skills Formation: Comparing Foreign and Local Firms in Kenyan Manufacturing Industry.* Paper presented at the International Workshop FDI-Assisted Development, Oslo.

Hoyer-Ellefsen, R. (2003) *Characteristics of emerging markets*, in Bruner, R.F.,Conroy, R., Li, W., O'halloran, E.F. &Lleras, M.P. (ed*.) Investing in emerging markets*. Charlottesville, Virginia: The Research Foundation of AIMR

Kenya Government (1994) *The Seventh National Development Plan. Resource Mobilization for Sustainable Development*. Nairobi, Kenya. Government Printers

Kenyan Government Website: http://republicofkenya.org/economy/foreign-direct-investment/ (accessed on 21/10/11)

Keynes J.M (1936) *The General Theory of Employment, Interest and Money*. 1964 reprint, New York: Harcourt Brace.

Khalwaty, T. (2000). *Inflation and Solutions*, (1st Ed).Gramedia Pustaka Utama, Indonesia.

King'ang'i , P. K. (2003). *Private investment and Economic growth in Kenya. An empirical investigation: 1980 -2002.* (Master of Arts Thesis, University of Nairobi, Nairobi).

Kinuthia, B.K.(August, 2010). *Determinants of Foreign Direct Investment in Kenya: New Evidence*. Paper submitted for the annual African International Business and Management (AIBUMA) Conference in Nairobi

Lahrèche-Révil, A. and Bénassy-Quéré, A. (2002) China in a regional monetary framework, In: ECB Seminar, December 12, 2002, Paris, France. The Development Research Centre in Beijing.

Lucas, R.E. (1990). Why Doesn't Capital Flow from Rich to Poor Countries? *American Economic Review.*

Madura, J. (2000). *International Financial Management*, (6th Ed), South-Western College Publishing.

Marco, H. (2012). The Path of exchange Rate and FDI inflows for EAC Countries, is it a great worry to investors?

Markusen, J.R. (1995) "The Boundaries of Multinational Enterprises and the Theory of International Trade" *Journal of Economic Perspectives* 9 (2): 169 -189.

McAleese, D. (2004) Economics for business: competition, macro-stability and globalisation. 3rd ed. Edinburgh Gate: Pearson.

Mody, A. (2004) What is an emerging market? IMF Working Paper [internet.] Available from http://www.imf.org/external/pubs/ft/wp/2004/wp04177.pdf (accessed on 26/10/11).

Musau, A,K. (2011). *The impact of foreign direct investment (FDI) on economic growth and development in Kenya.*Paper submitted for the annual African International Business and Management (AIBUMA) Conference in Nairobi

Musila, J.W. and Sigué, S.P. (2006) Accelerating foreign direct investment flowsto Africa: from policy statements to successful strategies. Managerial Finance,32(7), 577-593.

Mwega, F.M. and N.S. Ndung'u (2002) 'Explaining African Economic Growth Performance: The Case of Kenya', *Draft final report prepared for the AER Collaborative project on Explaining African Economic Performance*

Ncube N. and Ndou E. (2011)."Inflation Targeting, Exchange Rate Shocks and Output: Evidence from South Africa". African Development Bank Group Working Paper No. 134

OECD. (2002). *Foreign Direct Investment for Development: Maximizing Benefits, Minimizing Costs*. Organization for Economic Cooperation and Development, Paris.

Phillips, L.C. and M. Obwana (2000) "Foreign Direct Investment in East Africa: Interaction and Policy Implications". *African Economic Policy Discussion Paper number 67.*

Rahman, Z. and Bhattacharyya, S.K. (2003) Sources of first mover advantages in emerging markets – an Indian perspective. European Business Review,15(6), 361-371.

Rasiah, R. and G. Gachino (2005) "Are Foreign Firms more Productive, and Export and Technological Intensive than Local Firms in Kenyan Manufacturing?" *Oxford Development Studies*. 33(2): 211-228

Rweyemamu, N.A (1987) "Foreign Investment Policy: Kenya's experience" In Cable V., and Persaud, B.,(Eds) *Developing with foreign Investment*. The Common Wealth Secretariat. United States of America.

Seetanah, B. and Khadaroo, A.J. (2007) Foreign direct investment and growth:New evidences from Sub-Saharan African countries. Economic Developmentin Africa 2007, CSAE Conference. [internet.] Available fromhttp://www.csae.ox.ac.uk/conferences/2007-EEDiA-LaWBiDC/papers/169-Seetanah.pdf(accessed on 26/10/11)

Sharpe, F.-W., Alexander, J.-G., & Bailey, J.-V. (2006). *Investments* (6th ed.).(pp. 880-881).

Solnik, B. (2000). "*International Investment*", Addison Wesley Longman, Inc, New York.

Sundqvist, E. (2002). "An Empirical Investigation of the International Fisher Effect", *Social Science and Business Administration Programmes*42, pp. 1-41.

Tobin J. (1969) "A General Equilibrium Approach to Monetary Theory", *Journal of Money, Credit and Banking*.Vol.1 (1), p.15-29.

Todaro, M (2000) *Economic Development*. Reading,Mass Addison-Wesley.

UNCTAD. (2005). *Investment Policy Review, Kenya*. United Nations, New York and Geneva

Wanjala, B. M. (2001). *Determinants of foreign direct investment in Sub- Saharan Africa, with inferences on Kenya.* (Master of Arts Thesis, University of Nairobi, Nairobi).

Were, M., Geda, A., Karingi, S. & Ndung'u, N. (2001). *Kenya's Exchange Rate Movement in a liberalized environmental: An empirical Analysis*. Kenya Institute for Public Policy Research and Analysis (KIPPRA), Nairobi.

APPENDIX A: FDI NET FLOWS TO KENYA (1981-2010)

Table 1: Foreign Direct investments, net inflows to Kenya from all donors and investors from 1981 to 2012

Year	Amount in current prices (Tens of millions of US Dollars)
1981	1.4
1982	1.3
1983	2.4
1984	1.1
1985	2.9
1986	3.3
1987	3.9
1988	0
1989	6.2
1990	5.7
1991	1.9
1992	0.6
1993	14.5
1994	0.7
1995	4.2
1996	10.9
1997	6.2
1998	2.7
1999	5.2
2000	11.1
2001	0.5
2002	2.8
2003	8.2
2004	4.6
2005	2.1
2006	5.0
2007	72.9
2008	9.6
2009	11.6
2010	18.6

Source: World Bank Country Data

APPENDIX B: EXCHANGE RATE FLUCTUATIONS (1981-2010)

Table 2: Official exchange rate KES/US$ period averages and exchange rate fluctuations (standard deviations) from 1981 to 2012

Year	Av. EXR	EXRFL (R_i-R_{i-1})
1981	9.05	1.63
1982	10.92	1.87
1983	13.31	2.39
1984	14.41	1.10
1985	16.43	2.02
1986	16.23	(0.20)
1987	16.45	0.22
1988	17.75	1.30
1989	20.57	2.82
1990	22.91	2.34
1991	27.51	4.60
1992	32.22	4.71
1993	58.00	25.78
1994	56.05	(1.95)
1995	51.43	(4.62)
1996	57.11	5.68
1997	58.73	1.62
1998	60.37	1.64
1999	70.33	9.96
2000	76.18	5.85
2001	78.56	2.38
2002	78.75	0.19
2003	75.94	(2.81)
2004	79.17	3.23
2005	75.55	(3.62)
2006	72.10	(3.45)
2007	67.32	(4.78)
2008	69.18	1.86
2009	77.35	8.17
2010	79.23	1.88

Source: Central Bank of Kenya

APPENDIX C: LOGARITHIMS OF FDI AGAINIST EXCHANGE RATE FLUCTUATIONS (1981-2010)

Table 3: Logarithms of foreign direct investments as a reciprocal (x/10,000) and exchange rate fluctuations (standard deviations) from 1981 to 2012

Year	Log (FDI/10,000)	EXRFL
1981	0.1507	1.63
1982	0.1140	1.87
1983	0.3755	2.39
1984	0.0316	1.1
1985	0.4601	2.02
1986	0.5149	-0.2
1987	0.5953	0.22
1988	-1.4040	1.3
1989	0.7937	2.82
1990	0.7565	2.34
1991	0.2749	4.6
1992	-0.1963	4.71
1993	1.1633	25.78
1994	-0.1289	-1.95
1995	0.6262	-4.62
1996	1.0361	5.68
1997	0.7931	1.62
1998	0.4240	1.64
1999	0.7156	9.96
2000	1.0449	5.85
2001	-0.2755	2.38
2002	0.4412	0.19
2003	0.9124	-2.81
2004	0.6634	3.23
2005	0.3266	-3.62
2006	0.7048	-3.45
2007	1.8628	-4.78
2008	0.9804	1.86
2009	1.0654	8.17
2010	1.2690	1.88